

What is Claimed is:

1. A smart label comprising a circuitry pattern on a smart label substrate and a structural part comprising an integrated circuit on a chip on a structural part substrate, the structural part being attached to the smart label substrate and/or the circuitry pattern, and the circuitry pattern being electrically connected to the integrated circuit on the chip, wherein that the integrated circuit on the chip is connected to the circuitry pattern via at least one capacitor located outside the chip.
2. The smart label according to claim 1, wherein the integrated circuit on the chip is connected to the circuitry pattern via two capacitors connected in series and located outside the chip.
3. The smart label according to claim 1, wherein the structural part comprising the integrated circuit on the chip is attached to the smart label by means of a thermoplastic material.
4. The smart label according to claim 3, wherein the thermoplastic material is an anisotropic conductive thermoplastic film.
5. The smart label according to claim 4, wherein the capacitor comprises capacitor plates which are formed on the smart label substrate and the structural part substrate, the anisotropic conductive thermoplastic film and/or the smart label substrate forming a dielectric layer between the capacitor plates.
6. The smart label according to claim 5, wherein the dissipation factor of the smart label substrate is not more than 0.7×10^{-3} .
7. The smart label according to claim 5 or 6, wherein the material of the smart label substrate is polyolefin, such as polypropylene or polyethylene.
8. The smart label according to claims 5, wherein the structural part is attached to the smart label substrate on the side opposite to the side where the circuitry pattern is located, thereby preventing shortcircuiting.

9. The smart label according to claim 3 or 8, wherein the integrated circuit on the chip is located between the thermoplastic material and the smart label substrate.

5 10. The smart label according to claim 1, wherein the material of the structural part substrate is polyimide or polyester.

10 11. A smart label web comprising smart labels one after another and/or side by side, the smart label comprising a circuitry pattern and an integrated circuit on a chip attached to it, the integrated circuit on the chip being attached to the smart label by means of a structural part separated from a separate carrier web, wherein the integrated circuit on the chip is connected to the circuitry pattern via at least one capacitor located outside the chip.

15 12. The smart label web according to claim 11, wherein the integrated circuit on the chip is connected to the circuitry pattern via two capacitors connected in series and located outside the chip.